

BERGER, G. S.

"A Survey of Work Accomplished in the Study of the Rate of Flotation and the Applied Significance of Kinetic Features of the Process."

report presented at the Conference on Beneficiation of Useful Minerals, sponsored by the Learned Council of the IGD, AS USSR, Balakhash/Karagands, 29 Nov - 4 Dec 1960.

S/137/62/000/002/026/14
A006/A101

AUTHORS: Berger, G. S., Levin, I. N.

TITLE: Experience in laboratory separation of tantalite concentrates in a capacitor field with liquid dielectric

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 2, 1962, 6, abstract 2642 ("Izv. AN SSSR Otd. tekhn. n.", 1961, no. 4, 115-117)

TEXT: The authors studied the process of separating minerals, based on prevalently using repelling forces. The mechanism of dividing the minerals in a separator of a given type is as follows: a non-uniform electric field is induced between two charged plates. The gradient of strength-decrease in this field is oriented from the electrode center to the periphery, perpendicularly to the force lines of the field. The mineral particles are polarized and affected by the electrostatic attraction (or repulsion) forces and ponderomotive forces. The latter are directed towards a decrease of the field strength for minerals with a lesser dielectric constant than that of the medium, and towards a higher field strength if the dielectric constant of the mineral is higher than that of the medium. Particles with a lesser dielectric constant

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Experience in laboratory separation ...

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are electrostatically repelled from the electrodes and driven off from the field by the ponderomotive forces; particles with a high dielectric constant are electrostatically attracted to the electrodes and slightly affected by ponderomotive forces. The particles with a lesser dielectric constant perform then a zigzag motion, by tearing off the lower electrode and falling again upon it. Such a motion of particles assures peculiar refining and yields high-purity products. In the experiments, a kerosene-nitrobenzene mixture was used as a dielectric liquid. The experimental results prove the high efficiency of the method for refining some hard-to-concentrate crude tantalite concentrates. ✓

A. Shmeleva

[Abstracter's note: Complete translation]

Card 2/2

BERGER, G.S.; BULATOVA, Ye.V.; GRUZDEVA, R.Ye.; TSVIT, M.M.

Additional concentration of tantalite by flotation. TSvet.met.
34 no.10:25-27 0 '61. (MIRA 14:10)

1. Kazakhskiy nauchno-issledovatel'skiy institut mineral'nogo
syr'ya.

(Tantalite) (Flotation)

BERGER, G.S.

Minimum flotation time realized in laboratory conditions. TSvet. met.
35 no. 6:87-88 Je '62. (MIRA 15:6)
(Flotation)

BERGER, G.S., kand. tekhn. nauk

Test results of methods for determining the yield of concentrate
in coal flotation. Ugol' 36 no.9:47-48 S '61. (MIRA 14:9)

1. Karagandinskiy nauchno-issledovatel'skiy ugol'nyy institut.
(Coal preparation)

BERGER, Gennadiy Semenovich; BARSKIY, L.A., otv. red.; GARBER, T.N.,
red. izd-va; IL'INSKAYA, G.M., tekhn. red.

[Floatability of minerals] Flotiruemost' mineralov. Moskva,
Gosgortekhnizdat, 1962. 262 p. (MIRA 15:8)
(Flotation)

BERGER, G.S.; LEVIN, I.N.

Industrial testing of dielectric separation. TSvet.
met. 35 no.7:8-13 J1 '62. (MIRA 15:11)
(Electrostatic separators)

BERGER, G.S.

Efficiency of flotation machines taking into account the flow
of froth. Ugoi' 38 no.11:57-58 N '63.

(MIRA 17:9)

1. Kazakhskiy institut mineral'nogo syr'ya.

ZHUKOVSKIY, Nikolay Platonovich; PETROV, Aleksey Semenovich;
BLOKH, L.S., inzh.; SEGAL', L.S., inzh.; BERGER, G.S.,
kand. tekhn.nauk, retsenzent; KRASNOMOVETS, A.V., otv.
red.

[Graphic methods of technological calculations in the design of ore-dressing plants] Graficheskie metody tekhnologicheskikh raschetov pri proektirovanii obogatitel'nykh fabrik. Moskva, Izd-vo "Nedra," 1964. 168 p. (MIRA 17:4)

BERGER, G.S. (Alma-Ata); LEVIN, I.M. (Alma-Ata)

Mechanism of dielectric separation in a condenser field with
a liquid dielectric. Izv. AN USSR (Ser. i gor. dele no.3:
189-191 My-Je'64 (MIRA 17:7)

BERGM, G.S.

Flotation separation of mica for purposes of determining the
absolute age of granites. Metod. opr. abs. vozr. geol. obr.
no.6:17-20 '64 (MIRA 18:2)

BERGER, G.S.; LEVIN, I.N.

Laboratory equipment for the flotation of airbubble flocs. TSvet.
met. 38 no.188 Ja '65 (MIRA 1882)

BERGER, G.S.; BUZUNOV, V.A.; KISLITSYNA, L.G.; ISHCHENKO, V.V.

Device for determining sodium oleate adsorption on mineral powders
under grain floating conditions. TSvet. met. 38 no.2:16-17 F '65.
(MIRA 18:3)

BERGER, G.S.

Certain characteristics of the flotation of minerals with the use
of oleic acid. Tsvet. met. 37 no. 10:9-12 9 '64. (MIRA 18:7)

BERGER, G.S.; ZHILENKO, G.V.

Using infrared spectroscopy for the study of collector
adsorption on quartz. Izv.vys.ucheb.zav.; tsvet.net. 8
no.2:21-23 '65. (MIRA 19:1)

1. Kazakhskiy nauchno-issledovatel'skiy institut mineral'nogo
syr'ya. Submitted May 12, 1964.

BERGER, G. YA.

PA 65T43

USSR/Engineering
Mechanics
Machines

Mar/Apr 1948

"Priority in Soviet Theory of Mechanics and Machines,"
Docent G. Ya. Berger, Candidate of Sci, 3½ pp

"Vest Inzher i Tekhn" No 2

Historical recapitulation of some of the Soviet
achievements in the field of mechanics and machinery
that have given this field first place in the com-
petition to improve the lot of the Soviet people.

65T43

BERGER, G. Ya.

Berger, G. Ya. - "The elements of the theory of operation of a paddi-machine", Trudy Vsesoyuz. nauch.-issled. in-ta zerna i produktov ego pererabotki, issue 17, 1949, p. 16-29.

SO: U-4110, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 19, 1949).

BERGER; G. Ya.

Theory of grain self-sorting as applied to gravity separators.
Izv.vys.ucheb.zav.; pishch.tekh.no. 2:91-95 '64. (MIRA 17:5)

1. Astrakhanskiy tekhnicheskiy institut rybnoy promyshlennosti i khozyaystva, kafedra teoreticheskoy mekhaniki i teorii mekhanizmov i mashin.

POPCW, Jerzy; BERGER, Halina; JODCZYK, Jerzy

Tuberous sclerosis (Bourneville's disease). Pol. tyg. lek. 19
no.16:603-605 13 Ap '64.

1. Z Zakładu Anatomii Patologicznej Akademii Medycznej w Białym-
stoku (kierownik: prof. dr. med. L. Komczynski) i z Kliniki Cho-
rob Nerwowych Akademii Medycznej w Białymstoku (kierownik: prof.
dr. med. Z. Kanigowski).

BERGER, I.; IVANITSKIY, V.; KLINENKO, P.

Experience in introducing new trade forms in the Ukraine.

Sov.torg. no.6:23-26 Je '57.
(Retail trade)

(MLRA 10:8)

BERGER, I.

BERGER, I., kand.ekonom.nauk; IVANITSKIY, V., kand.ekonom. nauk

It is necessary to improve the potato and vegetable trade.

Sov.torg. no.10:18-21 0 '57.

(MIRA 10:11)

(Vegetables)

(Potatoes)

BERGER, I., kand.ekonom.nauk; IVANITSKIY, V., kand.ekonom.nauk

How to determine the efficiency of the introduction of new
equipment. Sov. torg. 34 no. 1:42-44 Ja '61. (MIRA 14:1)
(Stores, Retail--Equipment and supplies)

BERGER, I., kand.edonomicheskikh nauk (Kiyev)

Indices for calculating the size of a retail distribution
system. Sov. torg. 36 no.10:7-9 0 '62. (MIRA 16:2)
(Retail trade)

SAPEL'NIKOV, Ya.; GOLOVATYY, I.; GLAZUNOVA, V. aspirant, (Moskva); USTINOV, I.; KOLENKO, A.; KONDRATSKIY, A.; YEFREMOVA, L.; CORBACH, P., konstruktor (Moskva); BERGER, I., kand. ekon. nauk; KLEPIKOV, N.; SINYUTIN, V., kand. ekon. nauk; KORZHENEVSKIY, I., kand. ekon. nauk; PEREPLETCHIK, I.

Fiftieth anniversary of "Pravda." Sov. torg. 35 no.5:38-42
My '62. (MIRA 15:5)

1. Nachal'nik Planovo-ekonomicheskogo upravleniya Ministerstva
torgovli RSFSR (for Sapel'nikov). 2. Nachal'nik planovogo otdela
kurorttorga, g. Berdyansk (for Golovaty). 3. Moskovskiy ordena
Trudovogo Krasnogo znameni institut narodnogo khozyaystva im. G.V.
Plekhanova (for Glazunova). 4. Nachal'nik Otdela tovaroborota
Gosplana USSR, g. Kiyev (for Kolenko). 5. Glavnyy bukhgalter
Zhitomirskogo gorodskogo torga po trgovle promtovarami (for
Kondratskiy). 6. Starshiy khudozhnik Obshchesoyuznogo doma
modeley (for Yefremova). 7. Zaveduyushchiy sektorom Ukrainskogo
nauchno-issledovatel'skogo instituta trgovli i obshchestvennogo
pitaniya (for Berger). 8. Zaveduyushchiy sektorom Nauchno-
issledovatel'skogo instituta trgovli i obshchestvennogo
pitaniya, g. Moskva (for Sinyutin). 9. Zaveduyushchiy sektorom
Ukrainskogo nauchno-issledovatel'skogo instituta trgovli i
obshchestvennogo pitaniya, g. Kiyev (for Korzhenevskiy).
(Russian newspapers)

BERGER, I., dr.; JEREMIC, D., dr.; RADUJKOV, Z., dr

case of schistosomiasis. Vojnosanit. pregl. 19 no.10:710-713 O '62.

1. Glavna Pokrajinska Bolnica u Novom Sadu, Centralni klinicki labora-
torijum Urolosko odeljenje.
(SCHISTOSOMIASIS)

BERGER, I., kand. ekonom. nauk (Kiyev)

Methodology for planning the trade system. Sov. torg. 36
no.7:13-16 J1 '63. (MIRA 16:8)

(Stores, Retail)

BERGER, I. A.

42744. BERGER, I. A. Puti Kompensatsii Nevropsikhicheskikh Narusheniy U Invalidov Otechestvennoy Voiny V SR: Med.---San. Posledstviya Voiny I Vozmozhnostiya Po Ikh Likvidatsii. T. I. M., 1948, s. 99-105

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

BERGER, I. A. (Prof.)

Sostoyaniye Psikhonevrologicheskoy Pomoshchi v Oblastyakh Povolzh'ya i Perspektivy ee
Razvitiya p. 483

v. sb. Aktual'n. probl. nevropatol. i psikhietrii. Kuybyshev, 1957.

BERGER, I. A.

42744. BERGER, I. A. Puti Kompensatsii Nevropaticheskikh Narusheniy U Invalidov Otechestvennoy Voiny V SB: Med.--San. Posledstviya Voiny I Meropriyatiya Po Ikh Likvidatsii. T. I. M., 1948, s. 99-105

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

BERGER, I. A. (Prof.)

Sostoyaniye Psikhonevrologicheskoy Pomoshchi v Oblastyakh Povolzh'ya i Perspektivy ee
Razvitiya p. 483

v. sb. Aktual'n. probl. nevropatol. i psikhatrii. Kuybyshev, 1957.

BERGER, I.A. (Moskva)

Taska in the organization of phychiatric aid in connection with the decisions of the Central Committee of the CPSU and the Council of Ministers of the USSR on further improvements in medical aid and public health. Zhur.nevr.i psikh 60 no.8:925-929 '60.(MIRA 13:9)
(PSYCHIATRY)

BERGER, I.A.

Primary specialization of psychiatrists on the local level.
Zhur.nevr.i psikh. 62 no.8:1271-1272 Ag '62. (MIRA 15:12)

1. Nauchno-issledovatel'skiy institut psikhatrii (dir. - prof.
D.D.Fedotov) Ministerstva zdravookhraneniya RSFSR, Moskva.
(PSYCHIATRISTS)

BERGER, I.D.; GOLUBTSOVA, P., red.; TRUKHANOVA, A., tekhn. red.

[Instrument maker's handbook; for foremen and expert workers in instrument factories] Spravochnik instrumental'shchika; dlia masterov i kvalifitsirovannykh rabochikh instrumental'nykh tsekhov. Minsk, Gos. izd-vo BSSR, Red. nauchno-tekhn. lit-ry, 1958. 385 p. (Machine-shop practice—Handbooks, manuals, etc.) (MIRA 11:7)

BERGER, I.I.

USSR/Crystals.

B-5

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18251

Author : I.I. Berger, N.G. Sevast'yanov, L.K. Putiklina.

Title : Concerning Tungsten Oxides.

Orig Pub : Zh. neorgan. khimii, 1956, 1, No 8, 1713-1716

Abstract : Synthetic oxides from $WO_{2.9}$ to $WO_{1.0}$ were investigated with x-rays. It was found that there were between WO_3 and WO_2 two stable oxides with characteristic crystal lattices: the blue $WO_{2.8}$ and the violet $WO_{2.7}$. No intermediate oxides were discovered in the interval from $WO_{2.0}$ to $WO_{1.0}$. The stability limits of both the oxides are: of $WO_{2.8}$ from $WO_{2.9}$ to $WO_{2.8}$, and of $WO_{2.7}$

from $WO_{2.8}$ to $WO_{2.2}$. The values of α and I from x-ray spectrograms of pulverized samples are given.

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BERGER, I.I.

Oxidative phosphorylation in a living gastric mucosa. Trudy Stal.
med.inst. 27:89-92 '57 (MIRA 11:9)
(PHOSPHORYLATION)
(STOMACH)

ROZANTSEV, E.G.; BERGER, I.I.

Removal of sulfur compounds from hydrocarbon gases. Khim.prom.
no.5:339-340 My '61. (MIRA 14:6)
(Hydrocarbons)
(Sulfur compounds)

SOKOLOV, A.V.; BERGER, I.I.; GUROVICH, R.E.; KLIMENKO, M.Ya.;
ZAYTSEVA, S.S.; MOTINA, G.L.

Method of refining synthetic ethyl alcohol. Khim.prom.
no.5:327-330 My '62. (MIRA 15:7)
(Ethyl alcohol)

~~BER, Iosif~~ ~~Noyakhovich~~; DUBONOS, Nikolay Faddeyevich; KORZHENEVSKIY, I.I.,
kand.ekon.nauk; KHIMENKO, I.S.; LYUDSKOV, B.P., red.; SUDAK, D.M.,
tekhn.red.

[Planning economic activities of commercial organizations]
Planirovanie khoziaistvennoi deiatel'nosti torgovoi organizatsii.
Moskva, Gos. izd-vo torgovoi lit-ry, 1957. 148 p. (MIRA 11:4)
(Russia--Commerce)

BERGER, I.N.; IVANITSKIY, V.I.; KORZHENEVSKIY, I.I.; LYUDSKOV, B.P.,
red.; EL'KINA, E.M., tekhn. red.

[Planning the managerial operations of a retail enterprise]
Planirovanie Khoziaistvennoi deiatel'nsoti roznichnoi torgovoi
organizatsii. Moskva, Gos.izd-vo torg.lit-ry, 1961. 190 p.
(MIRA 15:1)

(Retail trade)

BERGER, I.Ya.

New equipment for administration and general services combines developed by the Southern State Institute for the Design and Planning of Mine Construction in the Coal Industry. Adm.-byt. komb. ugol'. shakht no.5:58-66 '62. (MIRA 17:8)

1. Gosudarstvennyy institut po proyektirovaniyu shakht v yuzhnykh rayonakh SSSR.

5.2530

1706
S/194/62/000/003/045/066
D201/D301

AUTHORS: Berger, Janos, Cser, Ferenc and Cser, Gábor
TITLE: A control circuit for a magnetic amplifier a.c. voltage stabilizer
PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 3, 1962, abstract 3-5-62n (Hungarian patent, cl. 21c, 67, no. 147464, 31.08.60)

TEXT: Since in the vacuum tube circuits used for this purpose, a considerable amount of heat is evolved which results in the long run in the instability of the stabilizer elements, a semiconductor diode and transistor circuit is proposed. The circuit is of nonlinear bridge type, in one of whose diagonals is connected the emitter-base circuit of a transistor; the excitation winding of a magnetic amplifier is connected to the transistor output and the output voltage of the stabilizer is taken from the other bridge diagonal. [Abstracter's note: Complete translation.]

Card 1/1

MEJZLIK, Jiri; BERGER, Josef

Thermal stability of the polyformaldehyde. Chem prum 12 no.8:461-464
Ag '62.

1. Vyzkumny ustav makromolekularni chemie, Brno (for Mejzlik).
2. Vyzkumny ustav kablov a izolantov, Bratislava (for Berger).

POPOVIC, M., dr.; MILOVANOVIC, D., dr.; VOLF, N., dr.; DRAGICEVIC,
C., psiholog; VLAJNIC, M., psiholog; BERGER, J., psiholog

Some aspects of neuroses among wireless and flight control
operators. Med. glas. 17 no.5:193-198 My '63.

1. Institut za medicinu rada Narodne Republike Srbije (Upravnik:
prof. dr. D. Karajovic) Neuropsihijatrijska klinika Medicinskog
fakulteta u Beogradu (Upravnik: prof. dr U. Jekic).
(NEUROSES) (OCCUPATIONAL DISEASES)
(AVIATION MEDICINE)

ACC NR: AP6010912

SOURCE CODE: CZ/0039/65/026/010/0577/0581

AUTHOR: Berger, Josef (Engineer)

ORG: Institute of Radio Engineering and Electronics, CSAV, Prague (Ustav radiotechniky a elektroniky CSAV)

TITLE: Impedance transducers

SOURCE: Slaboproudý obzor, v. 26, no. 10, 1965, 577-581

TOPIC TAGS: electric impedance, transistorized circuit, electric network, electronic component

ABSTRACT:

A brief introduction is given to the theory of impedance transducers and to the synthesis of circuits with transducers and no inductances. The properties of impedance transducers are described from the viewpoint of the theory of four-terminal networks, and three circuit diagrams are cited from the literature. They are analyzed on the basis of the most simple transistorized equivalent circuits. The method of compensating transducers is outlined briefly. As an example, the design is presented of a filter with both computed and measured characteristics for a frequency of about 100 Kc. Orig. art. has: 11 figures and 3 formulas. [JPRS]

SUB CODE: 09 / SUBM DATE: 17Jun65 / ORIG REF: 003 / OTH REF: 006

Cord 1/1

UDC: 621.392.5

L 44103-66

ACC NR: AP6009350 (A) SOURCE CODE: CZ/0078/65/000/011/0014/0014

AUTHOR: David, Zdenek (Engineer; Litvinov); Berger, Josef (Engineer; Hradec Kralove)

ORG: none

TITLE: Measuring and controlling oxidation in gas generators. CZ Pat. No. PV 3756-64

SOURCE: Vynalezky, no. 11, 1965, 14

TOPIC TAGS: gas engineering, oxidation, ~~gas generator~~

ABSTRACT: An Author Certificate has been issued for a device for measuring and controlling the oxidation zone of a pressure-type gas generator. The device consists of a differential thermoelectric couple and two standard thermoelectric couples, all connected to a multitrack recorder. The thermoelectric couples are placed inside the gas generator in a pair of containers, one of which is placed in the upper section at the drying-and-reduction zone level, the other one is in the lower section at the ash-zone level. The preferable temperature difference between these two locations is 100—200C. [KP]

SUB CODE: 13/ SUBM DATE: 30Jun64/

Cord 1/12

ROSSIYSKIY, Vladimir Alekseyevich, dotsent, kand. tekhn. nauk; DANILKINA, N.,
red.; BERGER, K., red.; BABIL'CHANOVA, G., tekhn. red.

[Precast reinforced-concrete retaining walls] Sbornye zhelezobeton-
nye podpornye stenki. Kiev. Gos. izd-vo lit-ry po stroit. i arkhitekt.
USSR, 1961. 157 p. (MIRA 14:8)
(Retaining walls) (Reinforced concrete construction)

BUKREYEV, Sergey Ivanovich [deceased]; MIKHAIL'S, V., spetsred.; BERGER, K.,
red.; KOVAL'CHUK, G., tekhn.red.

[Safety engineering in the construction industry] Tekhnika bez-
opasnosti v stroitel'stve. Kiev, Gos.izd-vo lit-ry po stroit. i
arkhit.USSR, 1960. 217 p. (MIRA 13:9)
(Building--Safety measures)

IVANOV, V.A., dotsent, kand.tekhn.nauk; KUNITSKIY, L.P., dotsent, kand.tekhn.
nauk; KORMAKOV, L.I., dotsent, kand.tekhn.nauk; GUDKOV, P.N., dotsent;
PRIMAK, N.S., dotsent, kand.tekhn.nauk; BRYANTSEV, V.I., inzh.;
SIKALO, P.I., inzh.; NOSOV, G.M., inzh.; LUKASHENKO, I., red.;
BERGER, K., red.; REZNICHENKO, I., red.; ZELENIKOVA, Ye., tekhn.red.

[Wooden construction elements; analysis and design] Dereviannye
konstruktsii; primery rascheta i konstruirovaniia. Kiev, Gos.isd-vo
lit-ry po stroit. i arkhit.USSR, 1960. 537 p. (MIRA 13:9)
(Building, Wooden)

SKATYNSKIY, Viktor Iosifovich [Skatyns'kyi, V.I.]; BERGER, K.
[Berher, K.], red.; VOLOSHCHENKO, Z., tekhn. red.

[Pocket handbook for a builder] Kyshen'kovyi dovidnyk
budivel'nyka. 4 vyd. Kyiv, Derzhbudvydav URSR, 1963. 559 p.
(MIRA 17:1)

(Building)

BOYARSKIY, Vasilii Sil'vestrovich; BERGER, K., red.; GRISHKO, T.,
tekhn. red.

[Volume and surface dimensions and yield norms of lumber
materials] Ob'emy, ploshchadi i normy vykhoda pilomaterialov.
Izd. 3., perer. i dop. Lugansk, Luganskoe oblastnoe izd-vo,
1962. 630 p. (MIRA 15:12)
(Lumber trade—Tables and ready-reckoners)

BERGER, K.; BRUCKNER, L.; FAJMANOVA, L.; JARONOVA, L.

Oncological statistics in the Ostrava region. Cesk. zdravot. 6 no.8:
454-456 Aug 58.

1. Krajska zdravotnicka statistika v Ostrave Onkologicke oddeleni KUNZ
Ostrava V. v Praskove.

(NEOPLASMS, statist.
in Czech. (Cz))

BRUCKNER, L., MUDr.; FAJMANOVA, L.; KLOSTERMANOVA, D.; BERGER, K.; JARONOVA, L.

Statistics on the assistance in control of oncological diseases.
Cesk. zdravot 7 no.5:265-269 June 59.

1. Onkologicke oddeleni KUNZ Ostrava V. v Paskove Krajska zdravotnicka
statisticka sluzba v Ostrave.
(NEOPLASMS, prev. & control
in Czech. (Cz))

LINOVICH, Yevsey Yermeyevich; LINOVICH, Leonid Yevseyevich; DRANNIKOV, A.M., doktor geologo-mineralog.nauk, red.; RIVKIN, S.A., dotsent, red.; BERGER, K., red.; TEPLYAKOVA, A., red.; BEREZOVSKIY, N., tekhn.red.

[Designing and constructing elements of residential and public buildings] Raschet i konstruirovaniye chastei grazhdanskikh zdaniy. Izd.5., perer. i dop. Kiev, Gos.izd-vo lit-ry po stroit. i arkhitekt. USSR, 1959. 687 p. (MIRA 13:3)

1. Kiyevskiy inzhenerno-stroitel'nyy institut (for Rivkin).
(Building) (Structures, Theory of)

ROKHLIN, Il'ya Aleksandrovich, kand.tekhn.nauk; LUKASHENKO, Ivan Andreyevich, kand.tekhn.nauk; AYZEN, Arkadiy Markovich. Prinimali uchastiye: DRANISHNIKOV, P.I., kand.tekhn.nauk; MINTSKOVSKIY, M.Sh., kand.tekhn.nauk. KOMAR, A.N. [deceased], red.; BERGER, K., red.; GARKAVENKO, L., tekhn. red.

[Handbook for construction engineers] Spravochnik konstruktora-stroitel'ia. Pod red. A.N.Komara. Kiev, Gostroiizdat USSR, 1963. 813 p. (MIRA 16:6)

1. Deystvitel'nyy chlen Akademiy stroitel'stva i arkhitektury SSSR i UkrSSR (for Komar).
(Building)

GLADKIY, Vladimir Ivanovich; LOBANOV, Mikhail Ivanovich;
SLAVCHENKO, Nikolay Antonovich; BERGER, K., red.;
VOLOSHCHENKO, Z., red.; GOLOVKO, L., red.

[Power equipment, electrical equipment, and plumbing
installations in construction; a manual] Energeticheskoe
elektrotekhnicheskoe i sanitarno-tekhnicheskoe oborudo-
vanie v stroitel'stve; spravochnik. Kiev, Gos.izd-vo po
stroit. i arkhit. USSR, 1964. 870 p. (MIRA 17:5)

BERGER, Karel, inz.

New design of flange sealings for high-pressure heat regenerators of turbines. Energetika Cz 13 no.2:82 F '63.

1. Teplarna Zelena Louka, Vychodoceske chemicke zavody Syntesia, Pardubice.

BERGER, Karel, inz.

Prevention and extinguishing of coalyard fires. Energetika
Cz 14 no.8:388 Ag '64

1. Vychodoceske chemicke zavody Synthesia National Enterprise,
Pardubice - Semtin.

BERGER, Karel, inz.

Reconstruction of the cooling equipment of crushing mill
bearings. Energetika Cz 14 no.9:450 S '64.

1. Vychodoceske chemicke zavody Synthesia National Enterprise,
Pardubice-Sentin.

LUKER'IN, Andrey Andrianovich; VISHNEVYY, V.V., red.; BERGER,
K.B., red.

[Geodetic tables of coordinate increments, elevations,
circular curve elements, and square roots of numbers]
Geodezicheskie tablitsy prirashchenii koordinat, pre-
vysheni, elementov krugovykh krivyykh i kvadratnykh
kornei iz chisel. Kiev, Budivel'nyk, 1965. 130 p.
(MIRA 18:10)

KOLOTOV, Stepan Mitrofanovich, prof., prepodavatel'; DOL'SKIY, Yevgraf Yevgen'yevich, kand. tekhn. nauk, prepodavatel'; MIKHAYLENKO, Vsevolod Yevdokimovich, kand. tekhn. nauk; GUSEV, Nikolay Aleksandrovich, kand. arkhitekt., prepodavatel'; GORLENKO, Boris Sergeevich, prepodavatel'; KOLOTOVA, Ol'ga Antonovna, prepodavatel'; BERGER, K.V., red.; SERAFIN, V.T., tekhn. red.

[Course in projective geometry] Kurs nachertatel'noi geometrii. 2. izd. Kiev, Gos.izd-vo lit-ry po stroit. i arkhitekt. USSR, 1961. 313 p. (MIRA 15:1)

1. Kiyevskiy inzhenerno-stroitel'nyy institut (for all except Berger, Serafin).
(Geometry, Projective)

KOLOBANOV, Sergey Konstantinovich, kand. tekhn. nauk; BERGER, K.V.,
red.; LEUSHCHENKO, N.L., tekhn. red.

[Water supply and sewerage] Vodopostachannia i kanalizatsiia.
Kyiv, Derzhbudvydav URSR, 1962. 345 p. (MIRA 15:6)
(Sewerage) (Water--Supply engineering)

VERIZHENKO, Yevgeniy Petrovich[Veryzhenko, IE.P.]; BERGER, K.V.
[Berher, K.V.], red.; LEUSHCHENKO, N.L., tekh. red.

[Collection of problems and exercises in the statics of
structures]Zbirnyk zadach i vprav iz statyky sporud. Vyd.2.,
perer. Kyiv, Dershbudvydav URSR, 1962. 214 p.

(MIRA 16:3)

(Graphic statics)

KOZLOV, Vladimir Shalevich; DYKHOVICHNYY, Aleksandr Aleksandrovich;
GONCHAR, A.S., red.; BERGER, K.V., red.; YEREMINA, I.A.,
tekhn. red.

[Design of reinforced-concrete elements; mechanical methods]
Raschet zhelezobetonnykh konstruktsii; mekhanizirovannye me-
tody. Kiev, Gosstroizdat USSR, 1963. 493 p. (MIRA 16:4)
(Calculating machines) (Precast concrete)

SKATYNSKIY, Viktor Iosifovich; BERGER, K.V., red.; LEUSHCHENKO,
N.L., tekhn. red.

[Pocket handbook for the builder] Karmannyi spravochnik
stroitelia. 4. izd. Kiev, Gosstroizdat, 1963. 575 p.
(MIRA 16:12)

(Building)

SHAPIRO, B.E.; DOLOTOV, V.V.; KACHURA, B.S.; MITSMAKHER, I.D.;
BERGER, K.V., red.; LUUSHCHENKO, N.L., tekhn. red.

[Organizing and planning the work of enterprises building
apartment houses] Organizatsiia i planirovanie raboty do-
mostroitel'nykh kombinatov. [By] B.E.Shapiro i dr. Kiev,
Gosstroizdat USSR, 1963. 91 p. (MIRA 17:2)

LINOVICH, Yevsey Yeremeyevich; LINOVICH, Leonid Yevseyevich; BERGER,
K.V., red.

[Designing and constructing elements of public buildings]
Raschet i konstruirovaniye chastei grazhdanskikh zdaniy.
Izd.7., perer. i dop. Budivel'nyk, 1964. 767 p.
(MIRA 17:12)

MOROZOV, Nikolay Viktorovich, doktor tekhn. nauk; ARBUZOV, Nikolay Terent'yevich, kand. tekhn. nauk; GROMOV, Vasilii Lukich kand. tekhn. nauk [deceased]; KALISHUK, Aleksandr Luk'yanovich, kand. tekhn. nauk; KURBATOV, Dmitriy Ivanovich, kand. tekhn. nauk; PILYUGIN, Mikhail Semenovich, kand. tekhn. nauk; KHUTORYANSKIY, Aleksandr Abramovich, kand. tekhn. nauk; SHERENTSI, Aleksandr Abramovich, kand. tekhn. nauk; LAVRIK, Gennadiy Ivanovich, arkh. MADERA, Georgiy Il'ich, inzh.; PINSKIY Ye'im Aronovich, inzh.; SHKLYAR, Aleksandr Samoylovich, inzh.; BERGER, K.V., red.; VISHNEVYY, V.V., red.; ISHCHEKNO, N.S., red.

[Manual on civil engineering] Spravochnik po grazhdanskomu stroitel'stvu. Izd.5., perer. i dop. Kiev, Budivel'nyk, 1965. 2 v. (MIRA 18:2)

STEFANOV, Boris Vladimirovich, kand. tekhn. nauk, dots.;
BERGER, K.V., red.

[Technology of concrete and reinforced concrete products]
Tekhnologiia betonnykh i zhelezobetonnykh izdelii. Kiev,
Budivel'nyk, 1965. 388 p. (MIRA 18:8)

BARYSHNIKOV, Aleksandr Grigor'yevich; KUPRIYENKO, Ivan Afinogenovich;
BERGER, K.V., red.

[Advanced elements, materials, and products for the major
repair of buildings] Progressivnye konstruksii, materialy
i izdeliia dlia kapital'nogo remonta zdani. Kiev, Budi-
vel'nyk, 1965. 99 p. (MIRA 18:11)

OL'KHOVOY, F.Ye.; LEMESHKO, N.I.; DYKOVA, L.N.; SHUMAKOVA,
L.A.; ISHCHENKO, N.S.; BERGER, K.V., ed.

[Antifriction bearings of construction equipment and
mechanized tools; a handbook] Podanipniki kacheniya
stroitel'nykh mashin i mekhanizirovannogo instrumenta;
spravochnik. Kiev, Budval'nyk, 1965. 317 p.

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1. Nauchno-issledovatel'skoy institut stroitel'nogo pro-
izvodstva. Dnepropetrovskiy filial.

ROMANIA

STEER, Viorica, MD.; BERGER, Ladislau, MD.; PAVEL, Maria, MD.

Bucharest, Viata Medicala, No 15, 1 Aug 63, pp 1053-1054

"Congenital Tuberculosis of the Newborn (Anatomical and
Clinical Description)."

BERGER, LESZEK

Plazy i gady Wielkopolskiego Parku Narodowego. Poznan, Panstwowe
Wydawn. Naukowe, 1955. 34 p. (Prace Monograficzne nad Przyroda
Wielkopolskiego Parku Narodowego pod Poznaniem, t. e zesz. 10)

SOURCE: East European Accession List (EEAL) Library of Congress
Vol. 5, no. 8, August 1956

BERGER, Leszek

Is *Rana esculenta lessonae* Camerano a distinct species?
Annales zool 22 no.13:245-261 '64.

BERGER, Libor

CZECHOSLOVAKIA

MD

Director:

X-ray Department of Susice Hospital, OUNZ Klatovy,

Prague, Prakticky Lekar, No 18, 1962, pp 790-791

"Temporary Change in the Size of Thymus of a Child
After Application of Ultracortenol"

Co-author:

SLOVACEK, Rudolf, MD, Director of the Department of
Pediatrics of Susice Hospital, OUNZ Klatovy,

PAUNESCU, Eugeniu; BERGER, Ludwig

The value of some biochemical tests for the differential diagnosis of bronchopulmonary cancer. Studii cerc biochimie 8 no.1:71-75 '65.

1. Laboratory of Biochemistry and Bacterial Physiology, Clinical Institute of Phthisiology, Bucharest, 90 Soseaua Vilor Submitted November 11, 1964.

USSR / Human and Animal Morphology (Normal and
Pathological). Blood and Hematogenesis.

S-2

Abs Jour: Ref Zhur-Biol., No 10, , 45570.

Author : ~~Berger, L. I.~~

Inst : Institute of Stomatology.

Title : Morphological Blood Changes in Parodontitis.

Orig Pub: Tr. in-ta stomatol., 1957, vyp. 2, 131-138.

Abstract: No abstract.

Card 1/1

BERGER, L. I.: Master Phys-Math Sci (diss) -- "Heat conductivity and thermal diffusion of certain semiconductor compounds". Moscow, 1958. 11 pp (Min Higher Educ USSR, Moscow Inst of Nonferrous Metals and Gold in M. I. Kalinin), 150 copies (KL, No 6, 1959, 123)

SIROTA, N.N.; BERGER, L.I.

Thermal conductivity of indium and gallium arsenides and
indium selenide and telluride. Inzh.-fiz.zhur. no.11:117-120
N '58. (MIRA 12:1)

1. Fiziko-tekhnicheskiy institut AN BSSR, g. Minsk, i Institut
tsvetnykh metallov i zolota imeni M.I. Kalinina, g. Moskva.
(Heat--Conduction) (Indium compounds) (Gallium compounds)

24,5200

68769

AUTHORS: Berger, L. I., Sirota, N. N. S/170/59/002/11/016/024
B014/B014

TITLE: Some Properties of the Alloys of the $\text{InAs}^{\wedge}$ - $\text{In}_2\text{Se}_3^{\wedge}$ System

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Vol 2, Nr 11, pp 102-105 (USSR)

ABSTRACT: In this article the authors study the heat conductivity and the linear expansion coefficient of a number of alloys of the quasi-binary section of the In-As-Se system. The production of these alloys and the device used to determine their heat conductivity within the temperature range $80^\circ\text{K} - 300^\circ\text{K}$ were described in an earlier paper by the authors (Ref 1). It is shown that heat conductivity decreases considerably with increasing content of In_2Se_3 (Fig 1). The device used to determine the linear expansion coefficient was described in the article mentioned in reference 2. The results contained in the diagram of figure 2 show an increase in the linear expansion coefficient with rising content of In_2Se_3 . Table 1 lists the coefficients of heat conductivity and expansion for the various temperatures. It may be seen that with rising temperature the linear expansion coefficient of pure InAs increases much faster than that of alloys or pure In_2Se_3 . In study-

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Some Properties of the Alloys of the InAs - In_2Se_3
System

68769

S/170/59/002/11/016/024
B014/B014

ing the relationship between thermal conductivity and expansion at 300°K the authors found the same relation between the square of the expansion coefficient and the reciprocal value of heat conductivity as V. P. Zhuze (Ref 2). Additional experiments performed in the temperature range $100 - 300^\circ\text{K}$ furnished the same result. The corresponding values are summarized in table 2. The authors thank N. A. Goryunova and S. I. Radautsan for the samples obtained from them and for their interest displayed in the present paper. There are 3 figures, 2 tables, and 5 references, 3 of which are Soviet.

ASSOCIATION: Institut tsvetnykh metallov i zolota im. M. I. Kalinina, g. Moskva (Institute of Nonferrous Metals and Gold imeni M. I. Kalinin, City of Moscow). Otdel fiziki tverdogo tela i poluprovodnikov AN BSSR, g. Minsk (Branch of Solid State Physics and Semiconductors of the AS BSSR, City of Minsk)

Card 2/2

24(6,8)

SOV/170-59-5-14/18

AUTHORS: Sirota, N.N., Berger, L.I.

TITLE: Coefficients of Linear Expansion of Indium and Gallium Arsenides and Indium Telluride, and Their Relation to Heat Conductivity
(Koeffitsiyenty lineynogo rasshireniya arsenidov indiya i galliya i tellurida indiya i ikh svyaz' s teploprovodnost'yu)

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Nr 5, pp 104-106 (USSR)

ABSTRACT: The authors determined the values of linear expansion coefficients for InAs, In_2Te_3 and GaAs and plotted them versus temperatures in Figure 2. The measurement were performed with a quartz dilatometer in the temperature range from 100 to 600°C. The character of the temperature dependence of the coefficient value for indium telluride differs somewhat from that observed with arsenides, which is explained by a difference in the types of crystalline lattice. The results obtained made it possible to confirm an assumption expressed by Ya.I. Frenkel' [Ref 5], V.P. Zhuze [Ref 6] and T.A. Kontorova [Ref 7] on the relation between the coefficient of linear expansion α and coefficient of heat conductivity κ . Figure 3 represents this relation which can be analytically expressed as follows:

Card 1/2

$$\frac{1}{\kappa} \sim \alpha^2$$

SOV/170-59-5-14/18

Coefficients of Linear Expansion of Indium and Gallium Arsenides and Indium Telluride, and Their Relation to Heat Conductivity

which relation was proposed previously by V.P. Zhuze. The authors express their gratitude to N.A. Goryunova, B.T. Kolomiyets and T.A. Kontorova for their interest in the present investigation. There are 2 graphs, 1 diagram and 8 references Soviet.

ASSOCIATIONS: Institut tsvetnykh metallov i zolota imeni Kalinina (Institute of Nonferrous Metals and Gold imeni Kalinin), Moscow; Otdel fiziki tverdogo tela i poluprovodnikov AN BSSR (Section of Physics of Solids and Semiconductors of the AS Belorussian SSR), Minsk.

Card 2/2

21.2253

30100
S/139/62/000/001/032/032
E032/E114

AUTHOR: Berger, L.I.

TITLE: Thermal conductivity, thermoelectric power and the electrical conductivity of magnesium stannite

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, no.1, 1962, 176-178

TEXT: The author reports measurements of the above three parameters on five specimens of Mg_2Sn in the temperature range 78-373 °K. The aim was to estimate the efficiency of this compound for the conversion of heat into electrical energy. It is pointed out that published measurements of the temperature dependence of the electrical conductivity and the thermoelectric power of Mg_2Sn are rather contradictory. The specimens were prepared from 99.9% pure magnesium and 99.95% pure tin. The polycrystalline specimens had a grain size of 3-4 mm. Microstructural analysis was used to check their stoichiometric composition. The thermal conductivity was measured as a function of the absolute temperature by the method described by N.N.Sirota and L.I. Berger (Ref.11: IFZh, v.1, no.11, 1958, 117).

Card 1/2

Thermal conductivity, thermoelectric.. S/139/62/000/001/032/032
E032/E114

It was found that the thermal conductivity is inversely proportional to the absolute temperature. The results obtained for the thermal conductivity are in disagreement with those reported by G. Busch and M. Schneider (Ref.9: Physica, v.20, 1954, 1084). The electrical conductivity was measured by a compensation method and the results are shown in Fig.2. The width of the forbidden band is about 0.30 eV. Thermoelectric power measurements were found to be in satisfactory agreement with the data reported by U. Winkler (Ref.7: Helv. Phys. Acta, v.28, 1955, 633). Thermoelectric power rises to a maximum of about 370 μ V/deg at about 200 $^{\circ}$ K. Fig.4 shows the variation of the factor $M = \alpha \sqrt{\sigma/x}$ (where σ is the electrical conductivity, x is the thermal conductivity and α is the thermoelectric power) with the absolute temperature. Acknowledgments are expressed to Dotsent B.A. Agranat and Dotsent I.I. Novikov for advice, and V.A. Rotenberg for assistance in the experiments. There are 4 figures.

ASSOCIATIONL Moskovskiy vecherniy metallurgicheskiy institut
Card 2/3 (Moscow Evening Metallurgical Institute)
SUBMITTED: November 14, 1960

S/137/62/000/005/075/150
A006/A101

AUTHORS: Berger, L. I., Radautsan, S. I.

TITLE: Some properties of arsenoselenides of indium

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1962, 14, abstract 5I79
(V sb. "Vopr. metallurgii i fiz. poluprovodnikov", Moscow, AN SSSR, 1961, 129-133)

TEXT: The authors investigated microhardness, lattice parameters, electric conductivity σ , concentration and mobility of current carriers, heat conductivity χ and the coefficient of linear expansion of alloys of the InAs - In_2Se_3 section in the In-As-Se system. The alloying of components was performed in evacuated and sealed quartz ampoules. With the aid of the roentgenostructural method it was established that in the InAs - In_2Se_3 system substitution solid solutions with a zinc blende structure are formed in the range from InAs up to the composition $2\text{InAs} \cdot 3\text{In}_2\text{Se}_3$. It is supposed that there is no InAs solid solution in In_2Se_3 . It was established that at low concentrations of In_2Se_3 in InAs the number of current carriers and σ increase. At a further increase in the In_2Se_3 content, the concentration of the current carriers and σ decrease gradually.

Card 1/2

Some properties of arsenoselenides of indium

S/137/62/000/005/075/150
A006/A101.

Since all specimens showed electron-type conductivity, it is assumed that a sharp increase of the concentration is connected with the origination of a greater number of donor levels on account of Se atoms which substitute As. Measurements of χ have shown that if small amounts of In_2Se_3 are added to InAs , χ decreases more rapidly than δ . The temperature dependence χ of the alloys is in a satisfactory agreement with Pierls' theory. Measurements of the coefficient of heat expansion show that in the 150 - 650°C temperature range its value increases with higher temperature, in accordance with Grüneisen's theory.

V. Srednogorska

[Abstracter's note: Complete translation]

Card 2/2

S/059 (13) 1001/003 (06) 1104
APR 9 1966

AUTHOR: Berger, D. I.

TITLE: The dependence of the heat conduction of a solid on the molecular weight and the melting point

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 45, abstract 3E246
("Sb. tr. Mosk. vech. metallurg. in-ta", 1963, no. 4, 157 - 162)

TEXT: On the basis of Lindeman's formulas for the characteristic temperature, it has been shown that the heat conduction of the crystal lattice is proportional to T_g/V (T_g being the melting point and V the volume of the unit cell). The value obtained is compared with the experimental data for a number of metallic compounds and a number of semiconducting substances.

D. Berger

[Abstracter's note: Complete translation]

Card 1/1

Investigation of some semiconducting compounds of the type $B_2IB^{IV}V_2^{VI}$.
L. I. Berger, N. A. Bul'onkov (10 minutes). 7

Investigation of solid solutions InSb-InAs. I. K. Shukina,
T. I. Kholmakova, V. G. Vinogradova, O. V. Mlodzeyevskaya, Yu. V.
Oboznenko, L. M. Skhol'nikova (10 minutes).

Report presented at the 3rd National Conference on Semiconductor Compounds,
Kishinev, 16-21 Sept 1963

BR
1
ACCESSION NR. AP4034906

S/0181/64/006/005/1311/1313

AUTHOR: Berger, L. I.; Balanevskaya, A. E.

TITLE: Heat expansion, thermal conductivity, and modulus of elasticity of certain ternary semiconductor compounds of the A_2BIVC_3 type

SOURCE: Fizika tverdogo tela, v. 6, no. 5, 1964, 1311-1313

TOPIC TAGS: Cu sub 2 GeS sub 3, Cu sub 2 SnS sub 3, Cu sub 2 GeSe sub 3, Cu sub 2 Sn Se sub 3, thermal expansion coefficient, thermal conductivity, ultrasound propagation velocity, modulus of elasticity

ABSTRACT: The linear coefficient of thermal expansion, the thermal conductivity of and the propagation velocity of ultrasound in specimens of Cu_2GeS_3 , Cu_2SnS_3 , Cu_2GeSe_3 , and Cu_2SnSe_3 have been measured at near room temperature. The expansion coefficient (α) was measured for polycrystalline cylindrical specimens with the use of equipment described by L. I. Berger (Authors' Certificate No. 155974, 1963).

Cord 1/3

ACCESSION NR. AP4034906

The propagation velocity (v) of longitudinal ultrasound waves was measured with an UZD-1M instrument at frequencies of 2.5 and 5.0 Mc. The densities (ρ) of the individual substances necessary for determining the moduli of elasticity (E) were taken from a study by L. S. Palatnik et al (Kristallografiya, v. 6, p. 960, 1961). The thermal conductivity (χ) of the crystalline lattice was measured with equipment recommended by A. F. Ioffe (Fizika poluprovodnikov, p. 412, Ed. House of the AS USSR, M-L, 1957). The results of the experiments are

given in a table and plotted as χ versus $\frac{T_s}{M}$, a versus $\frac{M}{T_s}$, and $\frac{E}{\rho}$ versus $\frac{T_s}{M}$ curves, where M is the molecular weight and T_s the melting

point. The results obtained were used to verify the theoretical

relationships: $\frac{1}{\chi} \sim a^2$, $\chi \sim \left(\frac{T_s}{M}\right)^{1/2}$, $a \sim \left(\frac{T_s}{M}\right)^{-1/4}$, and $E \sim \rho \frac{T_s}{M}$ estab-

lished by T. A. Kantorova (Zh T F, 26, 2021, 1956) and L. I. Berger (Sb. "Voprosy metallurgii i metallovedeniya," p. 157, Metallurgizdat,

Cord 2/3

ACCESSION NR. AP4034906

M, 1962). The theoretical data and experimental results were found to be in a good agreement. It is concluded that the above formulas hold true both for simple compounds and for more complex binary and ternary compounds, provided that the nature of the atomic interaction forces for individual substances differs but little. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh reaktivov i osobo chistyykh khimicheskikh veshchestv, Moscow (All-Union Scientific Research Institute of Chemical Reagents and Extra-Pure Chemical Substances)

SUBMITTED: 21Oct63

DATE ACQ: 20May64

ENCL: 00

SUB CODE: CH,PH

NO. REF. SOV: 009

OTHER: 000

Cord 3/3

ACCESSION NR: AP4041386

S/0048/64/028/006/1100/1102

AUTHOR: Berger, L.I.; Bul'yenkov, N.A.

TITLE: Electric, thermal and elastic properties of some semiconductor compounds of the $A_2B^{IV}C_3^{VI}$ type /Report, Third Conference on Semiconductor Compounds held in Kishinev 16 to 21 Sept 1963/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.6, 1964, 1100-1102.

TOPIC TAGS: semiconductor property, copper compound, germanium compound, tin compound, sulfur compound, selenium compound

ABSTRACT: The four compounds of the type $A_2B^{IV}C_3^{VI}$ in which A is Cu, B is Sn or Ge, and C is S or Se were synthesized by the method of C.H.L.Goodman (J.Phys.Chem.Solids 6,305,1958) and a number of their properties were measured. These compounds were investigated because of their possible technical applications as analogs of the corresponding AlB^{VI} compounds. The samples were polycrystalline cylinders 1 to 2 cm in diameter and up to 6 cm long with grain size up to 1 mm. They were all found to be p-type semiconductors, as were also samples with deviations up to 10% from the stoichiometric composition. The following properties were measured: melting point,

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ACCESSION NR: AP4041386

microhardness, electric conductivity, Hall coefficient, thermal expansion coefficient, thermal conductivity, and velocity of longitudinal ultrasonic waves. From these properties and the density, the following properties were calculated: concentration and mobility of current carriers, Debye temperature, heat capacity, mean free path of phonons, lattice constant, and Young's modulus. The results are tabulated. The melting points obtained in this work are somewhat greater than those found by L.S.Palatnik, Yu.F.Komnik, Ye.K.Belov and L.V.Atroshchenko (Kristallografiya 6,960,1961). This is ascribed to the purity of the reagents employed and the exactly stoichiometric composition of the product. The Debye temperatures were calculated both by Einstein's formula from the molecular weight, density, and Young's modulus, and by a method proposed by N.N.Sirota (N.N.Sirota and S.N.Chizhevskaya, Sb."Fizika i fiziko-khimicheskiy analiz", p.185.M.,1957) from the mean atomic weight, atomic volume, and thermal expansion coefficient. The two Debye temperatures were in satisfactory agreement. The physical properties of the four compounds investigated vary regularly with the molecular weight. As the molecular weight increases, the density, lattice constant, and thermal expansion coefficient increase, and the thermal conductivity, ultrasonic propagation velocity, Debye temperature, melting point and elastic modulus decrease. Orig.art.has: 3 formulas and 4 tables.

Card 2/3

ACCESSION NR: AP4041386

ASSOCIATION: none

SUBMITTED: 00

SUB CODE: SS, IC

NR REF BOV: 010

ENCL: 00

OTHER: 001

Card 3/3

BERGER, L.I.; BUL'YENKOV, N.A.

Electric, thermal, and elastic properties of some semiconducting
compounds of the type $Al_2B_{IV}C_{VI}3$. Izv. AN SSSR. Ser. fiz. 28
no.6:1100-1102 Je '64. (MIRA 17:7)

BERGER, L.I.; BALANEVSKAYA, A.E.

Thermal expansion, thermal conductivity, and modulus of elasticity of a number of ternary semiconducting compounds of the type $A_2^I B^{IV} C_3^{VI}$. Fiz.tver.tela 6 no.5:1311-1313 My '64. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh reaktivov i osobo chistyykh khimicheskikh veshchestv, Moskva.

SHUGAM, Ye.M.; BERGER, L.I.; RUKHADZE, Ye.G.; PANOVA, G.V.

Absorption spectra, conductance and its energy of activation of some salicylal-N-alkylamines. Zhur. fiz. khim. 39 no.2:483-483 P '65. (MIRA 18:4)

1. Institut khimicheskikh reaktivov Vsesoyuznogo nauchno-is-sledovatel'skogo institut khimicheskikh reaktivov i osobo chistykh khimicheskikh veshchestv i Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

BALANEVSKAYA, A.E.; BERGER, L.I.; PECHENNIKOV, A.V.; CHECHERNIKOV, V.I.

Magnetic properties of a series of ternary semiconductor compounds of the $A^{I}B^{III}C^{VI}$ type with chalcopyrite structure. Izv. AN SSSR. Neorg. mat. ¹ no.12:2165-2166 D '65.

(MIRA 18:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh reaktivov i osobo chistykh khimicheskikh veshchestv. Submitted July 8, 1965.

ACC NR: AP6010752

SOURCE CODE: UR/0076/66/040/003/0741/0743

AUTHOR: Nasirdinov, S. B.; Shugan, Ye. A.; Berger, L. I.; Plyushchev, V. Ye.; Shklover, L. P. 47
13

ORG: All-Union Scientific Research Institute of Chemical Reagents and High Purity Chemicals (Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh reaktivov i esobo chistykh khimicheskikh veshchestv)

TITLE: Electrical conductivity of phthalocyanines of certain metals

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 3, 1966, 741-743

TOPIC TAGS: organic semiconductor, phthalocyanine, electric conductivity

ABSTRACT: The effect of the metal atom on the thermal activation energy for conduction of certain metal-containing phthalocyanines has been studied and the activation energy was correlated with the position of the peak in the long wavelength (320 to 1100 nm) region of the absorption spectrum. To this end, the temperature dependence of conductivity was measured and absorption spectra were recorded for phthalocyanines of transition metals of groups IV (titanium, zirconium, and hafnium) and VIII (nickel, palladium, and platinum) of the periodic table. Chloro derivatives of the phthalocyanines were used in all cases except that of nickel. Electrical measurements were carried out for pellet samples in vacuum (10^{-3} mm Hg) at 25 to 2300. It was found that the temperature dependence of conductivity obeyed an exponential law in all

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